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IBM Technical Viewer/2

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General Information Manual



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About this Book

The purpose of this book is to introduce IBM® Technical Viewer/2 and to describe the capabilities and features of the product.

Who Should Read this Book?

This book is for people who need to understand and evaluate Technical Viewer/2. Possible users of this book include:

- Those people who are responsible for evaluating Technical Viewer/2 for use within their organizations
- Data processing staff
- Writers of technical information
- People who want to understand more about the product.

How this Book is Organized

This book contains the following chapters:

- **Introducing IBM Technical Viewer/2**

This chapter provides an introduction to the capabilities and advantages of Technical Viewer/2.

- **Features of IBM Technical Viewer/2**

This chapter describes the features of Technical Viewer/2.

- **Hardware and Software Requirements**

This chapter describes the hardware and software configurations required to run Technical Viewer/2.

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Introducing IBM Technical Viewer/2

Technical Viewer/2 is an electronic documentation program that any organization can use to produce and display large amounts of information. In particular, information providers (such as manufacturers) can use the program to make parts catalogs and service manuals available to users (for example, their sales and service agents) in an electronic (*online*) format.

Technical Viewer/2 runs on IBM Personal System/2[®] (PS/2)[®] system units under IBM Operating System/2[®] (OS/2)[®].

Technical Viewer/2 provides rapid access to online information, either for reading, or for selecting and transferring to data processing applications. The information can include text, diagrams, and photographs.

Authors use a tag language (similar to IBM BookMaster[®]) to create technical documentation in an electronic format. This online information is suitable for storage on CD-ROM (Compact Disc - Read-only Memory) or other electronic storage media.

With the addition of programming support, a wide range of extra services can be provided at the user's workstation. Supplied with Technical Viewer/2 is a sample program that demonstrates how online information can be integrated with applications to provide these services. Application programmers can also copy part or all of the sample program's source code for use in their own programs.

Advantages of Technical Viewer/2

Technical Viewer/2 enables information providers to prepare, distribute, and update technical documentation without using paper or microfiche. Users have the information that they need at their fingertips, on one workstation. As described below, there are many advantages for information providers and for the users of the information.

Cost-effective and Efficient Distribution of Information

Information can be distributed on electronic storage media such as diskette or CD-ROM. CD-ROM is a particularly good medium for this because compact discs:

- Can store large amounts of data
- Are inexpensive to produce
- Can be distributed economically by mail
- Are suitable for random access
- Are compatible with other computer storage devices
- Are very durable.

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Rapid Retrieval of Information

Technical Viewer/2 enables users to locate information rapidly and easily on a standard PS/2 workstation. By using the *hypertext* and *hypergraphic* capability, a user can select further information on a subject or picture by using a keyboard or pointing device such as a mouse. This capability allows a user to find information in a large library of documents, at the touch of a button.

Easy Information Updating

Technical Viewer/2 enables information providers to update information at any time, by sending changes to a user electronically. Changes are sent on a diskette, or over a network to the user's workstation.

Once the changes have been stored on the user's workstation, the new information is used by Technical Viewer/2. This avoids the need to produce a complete new set of documentation every time part of it is updated.

A Basis for Application Development

Technical Viewer/2 enables information providers to develop applications around the information to give added value to the user. For example, in addition to finding a part number from a parts catalog, users can extract that information and transfer it electronically to their data processing system. They can then make immediate online requests for stock availability and price information.

By using a pointing device, such as a mouse, the user selects and transfers data to another system without needing to use the keyboard. In this way, typing errors are avoided when transferring part numbers, for example.

Connectivity to Other Systems

The workstation on which Technical Viewer/2 is running can be connected to a user's business system and to an information provider's host system.

A wide variety of communications protocols is supported by OS/2 Extended Edition, including Async, SDLC, SNA, X.25, and both Token Ring and Ethernet™ local area networks (LANs).

Efficient Authoring

The information source files are written using a markup language that is very similar to that used by IBM BookMaster. Authors can create documents ranging from those that are very simple, to those that take full advantage of the wide range of supported features.

Authors can include comment text and symbols in their source files, and they can define the size and position of the windows in which the information is to be displayed. Tables and graphics (including photographs) can be used with text.

There is also a facility for conditional display of information. This feature allows the information provider to limit particular users to parts of the information. A document can also contain information in different languages, and the user can choose the language in which the information is displayed.

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Installation Support

An information provider may have thousands of sales and service agents who require hardware and software to use with Technical Viewer/2. IBM has the resources and skills to help, and can provide quotations for installing workstations, and also for installing customer and IBM software on workstations before delivery to agents.

Planning for the Future

The use of standard IBM PS/2 and OS/2 products as a basis for Technical Viewer/2 allows compatibility with future releases of hardware and software, and serviceability well into the future. Owing to the compatibility and flexibility of the OS/2 operating system, it is possible to improve the functions available on the workstation by adding new options and applications.

Technical Viewer/2 accommodates the evolution to multimedia publishing, and can already link to the IBM Audio Visual Connection* (AVC) which supports sound and "dynamic sequences" of photographs.

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Features of IBM Technical Viewer/2

Technical Viewer/2 allows a user to read a document that is stored on the workstation. Once the document has been opened, hypertext and hypergraphic links enable the user to find topics from a table of contents, and move rapidly from the current topic to related topics. (A topic can be thought of as an *electronic page* or part of such a page.) Other OS/2 applications can run at the same time on the workstation, and the user can easily switch to these while viewing a document on the screen.

The following are some of the features of Technical Viewer/2:

Table of Contents: The ability to display a nested table of contents on the screen, from which a topic can be selected and displayed. The table of contents can be either in text or graphic form.

Index: An index from which a topic can be selected and displayed.

Search: A search facility that can locate every occurrence of a word or phrase in either the current topic, a list of selected topics, the complete document, or another document. A global character can be used to search for a partial string.

Bookmark: A bookmark facility that enables the user to set a placeholder in the document. This is a convenient way of marking topics that are of particular interest so that they can be retrieved quickly and easily.

Viewed Pages: A log of viewed pages that can be used to redisplay any topic previously displayed during the current session.

Text Presentation: The ability to display text in multiple fonts, sizes, and colors.

Image Handling: Display of photographs and diagrams.

Tables: The ability to display text in tabular format.

Print: A print option that allows the user to print the currently displayed screen, the index, or the table of contents.

Windows: The presentation of information in *windows*. Windows can be thought of as "screens within the screen", each window having a different program running in it, or displaying different information. Topics are displayed in a window which is scrolled horizontally and vertically to bring hidden information into view.

The author can define multiple windows in which to display information. For example, a picture can be displayed in one window with associated text in another window. The user can open a new window in which to display additional information without replacing the information displayed in the original window.

The author can define the initial size and position of all windows, and the user can move and resize them when they are displayed.

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Links: The provision of hypertext and hypergraphic links between topics (text and pictures) in a document or between documents. The information to which the link is made can replace the information currently displayed, or can be displayed in a separate window.

Communication with Other Programs: Special links that allow the user to start other OS/2 programs from within Technical Viewer/2. Other links can be used to return data to other applications.

Parts Catalog: Special parts catalog functions that enable parts to be identified and selected. Applications can be written which, in conjunction with Technical Viewer/2, allow users to select parts by picking callout numbers on a diagram, or by selecting parts from lists. Hypertext links can be made to and from parts assemblies.

Conditional Display of Information: The ability to allow conditional display of information. Information providers can limit access to parts of the information to specific users.

Multiple-Language Support: Support for multiple languages within a document. A document can contain information written in different languages, and the user can choose the language in which the information is displayed.

Information Updating: Automatic merging of updated information with existing documentation.

Level Selection: Automatic selection of the most recent level of documentation, even if previous levels of documentation are still present.

Hardware and Software Requirements

Technical Viewer/2 runs on IBM Personal System/2 (PS/2) system units, under IBM Operating System/2 (OS/2). The required configuration depends on whether the workstation is to be used for displaying information using Technical Viewer/2 or for developing information.

Displaying Information with Technical Viewer/2

The hardware and software configurations required to run Technical Viewer/2 depend on several factors:

- The required resolution of the display.
- The need for a color or monochrome display.
- The need for extra memory, where additional applications are to be run on the workstation.
- The medium on which the information provider distributes the documentation.
- Whether or not the interface is to be mouse-driven.
- The need for several workstations to be connected by a LAN, or to be connected to a host computer. Such requirements influence the choice of PS/2 model and suitable adaptors for use with the LAN. They also determine whether OS/2 Standard Edition or OS/2 Extended Edition is needed.

The following lists give examples for a typical workstation using Technical Viewer/2. They are the recommended hardware and software configurations needed for a system running on a standalone workstation, using a mouse, and with documentation distributed on CD-ROM.

Hardware Components

- An IBM Personal System/2 Model 65 with:
 - 2MB of memory
 - A 60MB hard disk
 - A 3.5-inch diskette drive
- An IBM Personal System/2 keyboard
- An IBM Mouse
- A 640MB CD-ROM drive (internal)
- An IBM PS/2 XGA Display Adapter/A
- An IBM Color Display 8515 (14-inch).

If your workstation is to be connected to a local area network (LAN) or a hostsystem, you need additional adapter cards and memory. For example:

- 6MB of memory
- IBM 16/4 LAN Adapter/A.

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Software Components

In addition to Technical Viewer/2, you need:

- IBM Operating System/2 Standard Edition Version 1.3.

Or, if the workstation is connected to a LAN or a host computer, you need:

- IBM Operating System/2 Extended Edition Version 1.3.

Developing Information for Technical Viewer/2

Storage Requirements

The required configuration depends on the volume and type of information to be developed, and on other factors such as the number of pictures that are to be included.

To give some guidance, the following direct-access storage is estimated to be required for a typical page of a parts catalog with black and white diagrams (KB equals 1024 bytes).

A4 diagram at 100 dpi (dots per inch) resolution, in a file (compressed)	12KB
Typical text with 40 entries in a parts list	6KB
Compiled file (ready to view) with one parts assembly	15.5KB

For printing purposes, using IBM BookMaster:

A4 diagram at 300 dpi resolution, in a file (compressed)	50KB
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This makes a total of 34KB per parts assembly page, plus an extra 50KB if images for printing are also stored.

Hardware Components

The following typical hardware configurations assume that there is a LAN with one or more LAN servers and a number of LAN requesters. This is typical of a large information provider, but in some cases a LAN-based system might not be appropriate. If information is to be developed on a standalone workstation, the requirements are as for a LAN server, with the exception of the Token Ring Network adapter.

You may want to use other models of PS/2 with different options and displays, but you are recommended to use the fastest machine possible. Also, applications may require a particular screen resolution, so influencing the choice of display.

LAN Server Station

- An IBM Personal System/2 Model 95/AKD (33MHz) system unit with:
 - 12MB (MB equals 1 048 576 bytes) of memory on the planar board
 - A 320MB hard disk
 - Extra direct-access storage, as required, up to a total of 2.8GB (GB equals 1 024MB) of additional storage.
- An IBM Personal System/2 keyboard
- An IBM Mouse

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- An IBM PS/2 XGA Display Adapter/A
- An IBM Color Display 8515 (14-inch)
- An IBM Token Ring Network 16/4 Adapter/A.

Depending on the configuration of your system, you may also need:

- Document scanning support, for example:
 - An IBM 3119 PageScanner
 - An IBM 3119 Adapter/A.

In addition (assuming that the documentation is to be distributed on CD-ROM):

- A CD-ROM drive is recommended. The current base files can be on this drive when update files are compiled. For this, you need:
 - An IBM PS/2 CD-ROM Drive
 - An IBM PS/2 CD-ROM Drive Kit A.
- A tape streamer (or a similar device) is required for:
 - Importing information (text or picture files) from another system where there is no link from that system to the workstation that is used for developing information for Technical Viewer/2.
 - Offline file backup of large files such as original scan-resolution images.
 - Transferring CD-ROM images to a CD-ROM manufacturer (depending on the format used by the CD-ROM manufacturer).
- A CD-ROM simulator can be added if you do not have a CD-ROM drive, so that documentation can be viewed with the same performance as if it were being read from a CD-ROM on the viewing workstation.

LAN Requester Stations

- An IBM Personal System/2 Model 70/A21 system unit with:
 - 8MB of memory on the planar board
 - A memory-expansion option and memory-expansion kit adding an additional 4MB (making a total of 12MB)
 - A 120MB hard disk
- An IBM Personal System/2 keyboard
- An IBM Mouse
- An IBM PS/2 XGA Display Adapter/A
- An IBM Color Display 8515 (14-inch)
- An IBM Token Ring Network 16/4 Adapter/A.

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Software Components

The following list of software also assumes that there is a LAN with one or more LAN servers and several LAN requester stations. If a standalone workstation is used, the OS/2 LAN Server program is not required.

- IBM Operating System/2 Extended Edition Version 1.3.
- IBM Operating System/2 LAN Server Version 1.3 (for the LAN server only).
- IBM Technical Viewer/2.
- IBM Operating System/2 Programming Tools and Information Version 1.3. This "toolkit" is essential for the development of applications to be used with Technical Viewer/2.

